

121
said web-receiving position, said second frame assembly being in operative communication with said first frame assembly, such that said second frame assembly and said first frame assembly are simultaneously rotatable about said axis; and a locking assembly for selectively locking said first set or said second set of folding boards into said web-receiving position, wherein said locking assembly comprises a locking pin that is provided with an air channel for removing dust from a set of folding boards located at said web-receiving position.

REMARKS

Favorable reconsideration and allowance of the present application are respectfully requested.

Currently, claims 14-32, including independent claims 14, 26, and 32, are pending in the present application. The present claims are generally directed to a system for selectively replacing one set of folding boards with another set of folding boards. In one embodiment, the system includes a first frame assembly secured to a first set of folding boards and a second frame assembly secured to a second set of folding boards. Each frame assembly is rotatable about an axis such that the assemblies are capable of moving in and out of a web-receiving position. When positioned in the web-receiving position, the bar and set of folding boards are capable of receiving a paper web and imparting a fold thereto. By utilizing a system and method of the present invention, it has been discovered that a set of folding boards can be quickly and efficiently replaced with another set of folding boards.

In the Office Action, independent claim 14 was rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,747,813 to Genoud, et al. Genoud, et al.

describes a device for folding a rear flap on a box blank characterized by the rotating members and their shaft being mounted in a cradle that is shifted in the frame relative to the path of the blank having the flap being folded. The shaft is described as having a rotatable member with two folding hooks facing in the same direction of rotation for engaging the rear flap and folding the rear flap over onto the blank as the blank moves the path. (Col. 1, lines, 54-58). The hooks simultaneously rotate the shaft, the first hook hitting a flap of a box blank, followed by a 180 degree rotation and the second hook hitting the rear flap of the next box blank being processed. (Col. 3, lines 33-37).

However, contrary to the present claims, Genoud et al. fails to disclose a system that includes a first and second frame assembly having a bar and a set of folding boards. For example, as illustrated in Fig. 5 of Genoud et al., a rotative folder 11 includes two hook members 13 and 14. As shown in Fig. 6, such hook members 13 and 14 are adapted to fold a box blank 6. Despite the contentions set forth in the Office Action, the "hook members" of Genoud et al. are not "folding boards" as defined by the present application.

As is well known in the art, a "folding board" is a device, assembly, or mechanism that can receive a paper web and impart a fold configuration thereto. For instance, as shown in Fig. 1-4 of the present application, the folding board 21 can impart an interfolded-V fold to a paper web upon receipt of web, while the folding board 25 can impart a C-fold to the web. Regardless of the type of fold, however, the folding boards impart the desired fold when the web is received. On the other hand, the hooks of Genoud et al. "engage" a bottom surface of a box blank and fold it along a crease line. (See e.g., Col 2, lines 62-67). This is clearly not the web-receipt required by a "folding

board" of independent claim 14. Thus, for at least this reason, Applicant respectfully submits that Genoud et al. fails to disclose at least one limitation of independent claim 14.

Besides the above-mentioned rejection, independent claim 14 was also rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 3,472,504 to Murphy et al. in view of U.S. Patent No. 5,421,072 to Kuban. Murphy et al. relates to the interfolding of a succession of webs by a series of folding devices. For example, as shown in Figs. 61-72, Murphy et al. describes a machine that includes a series of folding devices 175 that are disposed in a spaced-apart relationship with each other along the path of the stack 76. (Col 14, lines 24-35). However, as correctly noted by the Examiner, Murphy et al. fails to disclose a system for selectively replacing one set of folding boards for another set.

Nevertheless, in the Office Action, Murphy et al. was cited in conjunction with Kuban in an attempt to render obvious independent claim 14. Kuban describes a device for machining a plurality of workpieces. For instance, the machining assemblies of Kuban can be any type of "machining, milling or cutting apparatus" which takes any unfinished workpiece blank and either finishes the workpiece or completes a step necessary in finishing the workpiece. (Col 3, lines 64-68). A single operator sequentially unloads and loads a plurality of machining assemblies so that when the first machining assembly returns to the operator station after traversing the path, all of the other machining assemblies will have been unloaded and loaded and the machining process for the workpiece on the first machining assembly is complete. (Col 4, lines 5-17).

However, Applicant respectfully submits that one of ordinary skill in the art would not have been motivated to combine the references in the manner suggested in the Office Action to achieve the limitations of the present claims. For example, Murphy, et al. is directed to a method for folding a paper web, such as facial tissues. (Col 1, lines 36-43). On the other hand, Kuban describes a machining assembly as a “machining, milling or cutting apparatus.” (Col 3, lines 64-68). Based on the description of Kuban, it is not likely that one of ordinary skill in the art would even consider the “machining of a workpiece” to be relevant to the folding of a tissue web.

In addition, Kuban also states that:

The present invention provides an apparatus which comprises a plurality of machining assemblies mounted on a carousel each of which is a self contained machining assembly that completes a machined part from a blank during one revolution of the carousel. (Emphasis added) (Col 1, lines 52-56).

From the above, it is evident that a “workpiece” is during the revolution of the carousel. This is a result of the workpiece being machined at each rotational position until it is finished at the final rotation. On the other hand, Murphy, et al. describes a series of folding devices for folding a web that is accomplished while the folding devices remain stationary. It would not be necessary to rotate the web of Murphy, et al. to a different machining position as described in Kuban to complete the folding process. As a result, there would have simply been no motivation for one of ordinary skill in the art to combine the references in the manner suggested in the Office Action.

In fact, contrary to both of the above-cited references, the system of independent claim 14 is designed to replace one set of folding boards for another set of folding

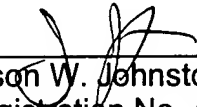
boards. This allows, for instance, an operator to easily alter the type of fold imparted to different webs. It appears that the only apparent incentive for modifying the references in this manner improperly stems from Applicant's own specification, which is improper under 35 U.S.C. §103(a). Thus, for at least the reasons set forth above, Applicant respectfully submits that one of ordinary skill in the art would not have found it obvious to modify the references in the manner suggested in the Office Action.

In addition, the above-cited references were also combined to reject dependent claims 15-25. Applicant respectfully submits, however, that at least for the reasons indicated above relating to corresponding independent claim 14, claims 15-25 patentably define over the references cited. However, Applicant also notes that the patentability of dependent claims 15-25 certainly does not hinge on the patentability of independent claim 14. In particular, it is believed that these claims possess features that are independently patentable, regardless of the patentability of claim 14.

Thus, it is believed that the present application is in complete condition for allowance and favorable action, therefore, is respectfully requested. Examiner Desai is invited and encouraged to telephone the undersigned, however, should any issues remain after consideration of this amendment.

Please charge any additional fees required by this Amendment to Deposit Account No. 04-1403.

Respectfully submitted,
DORITY & MANNING, P.A.



Jason W. Johnston
Registration No. 45,675

DORITY & MANNING, P.A.
P.O. Box 1449
Greenville, SC 29602-1449
(864) 271-1592
Fax: (864) 233-7342

Date: 7/12/02